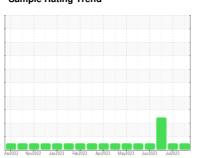


OIL ANALYSIS REPORT

Sample Rating Trend



NORMAL



Machine Id **731115**

Component **Natural Gas Engine**

PETRO CANADA DURON GEO LD 15W40 (--- GAL)

DIAGNOSIS

Recommendation

Resample at the next service interval to monitor.

Wear

All component wear rates are normal.

Contamination

There is no indication of any contamination in the oil

Fluid Condition

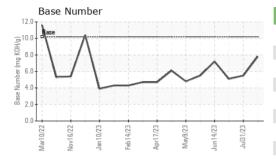
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

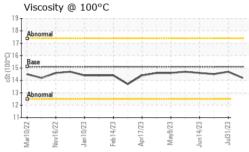
(GAL)		Aar2022 Nov2	022 Jan2023 Feb2023	Apr2023 May2023 Jun2023	Jul2023	
SAMPLE INFORM	MATION	method	limit/base	current	history1	history2
Sample Number		Client Info		GFL0090650	GFL0087225	GFL0087237
Sample Date		Client Info		04 Sep 2023	31 Jul 2023	07 Jul 2023
Machine Age	hrs	Client Info		5611	5391	5214
Oil Age	hrs	Client Info		0	0	5214
Oil Changed		Client Info		Not Changd	Not Changd	Not Changd
Sample Status				NORMAL	NORMAL	ABNORMAL
WEAR METAL	S	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>50	11	10	6 0
Chromium	ppm	ASTM D5185m	>4	<1	<1	1
Nickel	ppm	ASTM D5185m	>2	0	<1	1
Titanium	ppm	ASTM D5185m		0	0	3
Silver	ppm	ASTM D5185m	>3	<1	<1	0
Aluminum	ppm	ASTM D5185m	>9	3	1	6
Lead	ppm	ASTM D5185m	>30	2	<1	1
Copper	ppm	ASTM D5185m	>35	3	2	17
Tin	ppm	ASTM D5185m	>4	<1	<1	1
Vanadium	ppm	ASTM D5185m		0	0	0
Cadmium	ppm	ASTM D5185m		0	0	0
ADDITIVES		method	limit/base	current	history1	history2
ADDITIVES Boron	ppm	method ASTM D5185m	limit/base	current 54	history1 9	history2 12
	ppm ppm					
Boron		ASTM D5185m	50	54	9	12
Boron Barium	ppm	ASTM D5185m ASTM D5185m ASTM D5185m	50 5	54 0	9	12 <1
Boron Barium Molybdenum	ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m	50 5 50	54 0 52	9 0 56	12 <1 50
Boron Barium Molybdenum Manganese	ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	50 5 50 0	54 0 52 2	9 0 56 <1	12 <1 50 7
Boron Barium Molybdenum Manganese Magnesium	ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	50 5 50 0 560	54 0 52 2 637	9 0 56 <1 527	12 <1 50 7 710
Boron Barium Molybdenum Manganese Magnesium Calcium	ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	50 5 50 0 560 1510	54 0 52 2 637 1525	9 0 56 <1 527 1632	12 <1 50 7 710 1301
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus	ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	50 5 50 0 560 1510 780	54 0 52 2 637 1525 805	9 0 56 <1 527 1632 705	12 <1 50 7 710 1301 660
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc	ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	50 5 50 0 560 1510 780 870	54 0 52 2 637 1525 805 999	9 0 56 <1 527 1632 705 946	12 <1 50 7 710 1301 660 931
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur	ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	50 5 50 0 560 1510 780 870 2040	54 0 52 2 637 1525 805 999 3163	9 0 56 <1 527 1632 705 946 2379	12 <1 50 7 710 1301 660 931 2885
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN	ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	50 5 50 0 560 1510 780 870 2040	54 0 52 2 637 1525 805 999 3163 current	9 0 56 <1 527 1632 705 946 2379 history1	12 <1 50 7 710 1301 660 931 2885 history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon	ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m	50 5 50 0 560 1510 780 870 2040	54 0 52 2 637 1525 805 999 3163 current	9 0 56 <1 527 1632 705 946 2379 history1 4	12 <1 50 7 710 1301 660 931 2885 history2 42
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium	ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m	50 5 50 0 560 1510 780 870 2040 limit/base >+100	54 0 52 2 637 1525 805 999 3163 current 18	9 0 56 <1 527 1632 705 946 2379 history1 4	12 <1 50 7 710 1301 660 931 2885 history2 42 6
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium	ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m	50 5 50 0 560 1510 780 870 2040 limit/base >+100 >20	54 0 52 2 637 1525 805 999 3163 current 18 3	9 0 56 <1 527 1632 705 946 2379 history1 4 1	12 <1 50 7 710 1301 660 931 2885 history2 42 6 10
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium INFRA-RED	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m	50 5 50 0 560 1510 780 870 2040 limit/base >+100 >20	54 0 52 2 637 1525 805 999 3163 current 18 3 3	9 0 56 <1 527 1632 705 946 2379 history1 4 1 2	12 <1 50 7 710 1301 660 931 2885 history2 42 6 10 history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium INFRA-RED Soot %	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m method *ASTM D5185m *ASTM D5185m ASTM D5185m ASTM D5185m *ASTM D5185m	50 5 50 0 560 1510 780 870 2040 limit/base >+100 >20 limit/base	54 0 52 2 637 1525 805 999 3163 current 18 3 3	9 0 56 <1 527 1632 705 946 2379 history1 4 1 2 history1 0.1	12 <1 50 7 710 1301 660 931 2885 history2 42 6 10 history2 0.1
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium INFRA-RED Soot % Nitration	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m Method ASTM D5185m Method *ASTM D7844 *ASTM D7624 *ASTM D76145	50 5 50 0 560 1510 780 870 2040 limit/base >+100 >20 limit/base	54 0 52 2 637 1525 805 999 3163 current 18 3 current 0.1 8.3	9 0 56 <1 527 1632 705 946 2379 history1 4 1 2 history1 0.1 9.8	12 <1 50 7 710 1301 660 931 2885 history2 42 6 10 history2 0.1 11.4

Base Number (BN) mg KOH/g ASTM D2896 10.2 7.8



OIL ANALYSIS REPORT

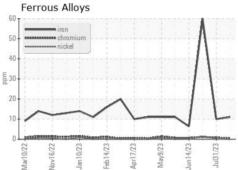


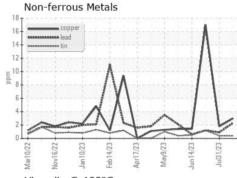


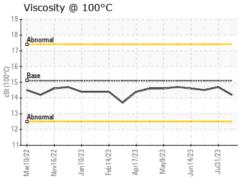
VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE	NONE
Appearance	scalar	*Visual	NORML	NORML	NORML	NORML
Odor	scalar	*Visual	NORML	NORML	NORML	NORML
Emulsified Water	scalar	*Visual	>0.1	NEG	NEG	0.2%
Free Water	scalar	*Visual		NEG	NEG	NEG

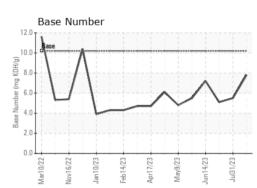
FLUID PROPERTIES		memoa			riistory i	History
Visc @ 100°C	cSt	ASTM D445	15.1	14.2	14.7	14.51

GRAPHS













Certificate L2367

Test Package : FLEET

Laboratory Sample No. Lab Number Unique Number : 10642842

: GFL0090650 : 05946883

: WearCheck USA - 501 Madison Ave., Cary, NC 27513 Received Diagnosed

: 11 Sep 2023 : 12 Sep 2023 Diagnostician : Wes Davis

GFL Environmental - 836 - Kansas City Hauling

7801 East Truman Road Kansas City, MO US 64126 Contact: Robert Hart

rhart@gflenv.com T: (580)461-1509

To discuss this sample report, contact Customer Service at 1-800-237-1369. * - Denotes test methods that are outside of the ISO 17025 scope of accreditation.

Statements of conformity to specifications are based on the simple acceptance decision rule (JCGM 106:2012)